

In the Claims:

This listing of claims will replace all prior versions and listings of claims in the case.

1 – 88 (Cancelled).

89. (Currently amended): A kit comprising:

at least one antibody array, said antibody array comprising a plurality of discrete locations arrayed in a spatially addressable ordered matrix on a solid surface, wherein each of the discrete locations comprises one or more spots of an antibody bound to the solid surface, wherein a plurality of the discrete locations contain antibodies that are different from the antibodies of the other discrete locations;

a first detectable label for labeling a first protein sample;

optionally a second detectable label for detectably labeling a second protein sample, wherein the second detectable label is different from the first detectable label; and

instructions for using the kit to perform one or more of the following:

- i. identifying antigens in the first or the second protein samples that bind to one or more of the antibodies bound to the solid surface;
- ii. comparing the protein expression profiles of two or more protein samples;
- iii. characterizing the first or the second protein samples based on the protein expression profile thereof; and
- iv. determining the effect of varying binding conditions on the affinity of the bound antibodies to antigens present in first or second protein samples.

90. (Previously presented): The kit according to claim 89, wherein the array comprises up to about 600 discrete locations per square centimeter.

91. (Previously presented): The kit according to claim 89, wherein the array comprises up to about 1000 discrete locations.

92. (Previously presented): The kit according to claim 89, wherein the array comprises at least 1000 discrete locations.

93. (Previously presented): The kit according to claim 89, wherein each spot contains between about 1 ng to about 1 μ g of antibody.
94. (Previously presented): The kit according to claim 89, wherein the antibodies are covalently bound to the solid surface.
95. (Previously presented): The kit according to claim 89, further comprising a second antibody array.
96. (Previously presented): The kit according to claim 89, wherein each detectable label is a fluorescent dye, biotin, an epitope tag or a colorimetric enzyme.
97. (Previously presented): The kit according to claim 89, wherein each detectable label is a fluorescent dye.
98. (Previously presented): The kit according to claim 97, wherein each detectable label is selected from the list fluorescein isothiocyanate (FITC), fluorescein, rhodamine, tetramethyl-rhodamine-5-(and 6)-isothiocyanate (TRITC), Texas red, a cyanine dye, Cy3 and Cy5.
99. (Previously presented): The kit according to claim 89, wherein each discrete location in the array comprises two or more discrete spots of an antibody bound to the solid surface.
100. (Previously presented): The kit according to claim 99, wherein each of the two or more discrete spots contains a different amount of antibody bound to the solid surface.
101. (Previously presented): The kit according to claim 99, wherein each of the two or more discrete spots contains the same amount of antibody bound to the solid surface.
102. (Previously presented): The kit according to claim 89, wherein each discrete location in the array comprises three or more discrete spots of an antibody bound to the solid surface.

103. (Currently amended): The kit according to claim 89, wherein the discrete locations on the solid surface contain different antibodies.
104. (Previously presented): The kit according to claim 89, wherein at least a portion of the discrete locations on the solid surface contain the same antibodies.
105. (Previously presented): The kit according to claim 89, wherein at least a portion of the antibodies bound to the solid surface are uncharacterized.
106. (Previously presented): The kit according to claim 89, wherein at least a portion of the antibodies bound to the solid surface are characterized.
107. (Previously presented): The kit according to claim 89, wherein the antibodies in each spot are independently polyclonal antibodies, monoclonal antibodies, antibody fragments, single chain antibodies, humanized antibodies or recombinant antibodies.
108. (Previously presented): The kit according to claim 89, further comprising an aqueous solution for incubating a sample with the antibody array.
109. (Previously presented): The kit according to claim 89, further comprising a blocking solution.
110. (Previously presented): The kit according to claim 89, further comprising a washing buffer.
111. (Previously presented): The kit according to claim 89, wherein the surface comprises one or more of a plastic, a complex carbohydrate, an acrylic resin, nitrocellulose, glass, silicon or nylon.